



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,056	02/18/2004	Rob Worsham	12013/50101	5746

23838 7590 07/13/2005

KENYON & KENYON
1500 K STREET NW
SUITE 700
WASHINGTON, DC 20005

EXAMINER

MICHENER, JENNIFER KOLB

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,056

Applicant(s)

WORSHAM, ROB

Examiner

Jennifer K. Michener

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 31-33 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-9 and 31-33 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/20/2005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-9 and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu (NPL document cited by Applicant) in view of Buscemi et al. (5,968,092).

Wu teaches a method of coating a device by vaporizing a frozen target with a laser beam to deposit a bio-layer on the device (abstract).

Wu's frozen target may be a therapeutic agent or polyethylene glycol (PEG), or composites, in a solution within a solvent (Introduction; Sections 2.2, 3.1, and 4.1).

Wu teaches an exemplary method of coating a bio-sensor, but Wu teaches that his materials and techniques are directly applicable to areas such as biocompatible coatings for medical implants and implantable devices (p. 608, col. 1, lines 3-5). It is Examiner's position that the term medical implantable devices is inclusive of stents, as required by newly-amended claims.

Additionally, Examiner cites Buscemi. Buscemi teaches that stents are desirably coated with a composite coating mixture of polyethylene glycol and therapeutic agents (col. 8, lines 34-45).

Since Wu teaches coating implantable medical devices with PEG and therapeutic agents using a frozen target and an energy beam and Buscemi teaches coating stents, which are implantable medical devices, with PEG and therapeutic agents, Buscemi would have reasonably suggested the use of a stent substrate in the method of Wu. It would have been obvious to one of ordinary skill in the art to use the teachings of Buscemi in the method of Wu to provide Wu with a suitable example of an implantable medical device on which the coating of his invention could be deposited using the method of his invention.

Wu's frozen target is mounted on a refrigerated assembly. The assembly may be rotated (Fig. 2(a)) within a vacuum chamber, subjecting the target to a pulsed laser beam, after which the solvent is pumped away for deposition of the target.

Wu teaches creation of multilayer composite structures using the pulsed laser deposition method of his invention (Conclusion), inherently requiring directing the laser beam at another frozen target.

Regarding claim 7, it appears from Figure 2a that the vaporized target material is directed towards the substrate, however Wu does not specifically teach transporting the material within a directed "gas flow". However, it is Examiner's position that it would

Art Unit: 1762

have been obvious to one of ordinary skill in the art to enhance the flow of the target coating by directing it to the desired substrate using a suspending gas stream.

Regarding claims 31-33, Wu's vapor inherently forms a coating on the portion of the device. An implantable device is three-dimensional and therefore some end thereof will be coated and some portion that is facing away from the target matrix will not be coated (see Figure 2a). Wu also teaches patterning which leaves some portions uncoated (p. 609, col. 1). Wu teaches that composites, patterns of biomaterials (plural), and multi-layer coatings can be placed on the substrate using this method or in combination with other printing techniques (p. 613, col. 2). While it is not explicitly stated, it is Examiner's position that the use of different materials in different coating steps using different techniques will inherently apply some materials in some portion of the substrate and other materials in other portions of the substrate.

Response to Arguments

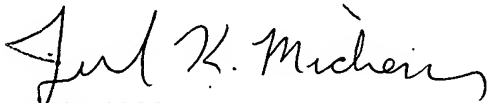
3. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer K. Michener whose telephone number is (571) 272-1424. The examiner can normally be reached on Tuesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer K Michener
Primary Patent Examiner
AU 1762
July 10, 2005